Torrent VCG

Administration Manual

Version 3.0

STARBAK
communications inc.

http://www.starbak.com

Torrent VCG™

User Manual

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The StarBak Torrent VCG includes software developed by the Apache Group for use in the Apache HTTP server project (http://www.apache.org/).

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Important Safeguards

For your protection, please read all these instructions regarding your Torrent VCG and retain for future reference.

1. Read Instructions

Read and understand all the safety and operating instructions before operating the appliance.

2. Ventilation

The Torrent VCG's vents (on the front panel) and the fan openings (on the front panel) are provided for ventilation and reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. This product should not be placed in a built-in installation unless proper ventilation is provided.

3. Lithium Battery

The lithium battery on the system board provides power for the real-time clock and CMOS RAM. The batter has an estimated life expectancy of 5 to 10 years. If your system no longer keeps accurate time and date settings, it may be time to change the battery. Contact StarBak for service information. There are no operator serviceable parts inside.

5. Electrical Shock

To reduce the risk of electrical shock, do not disassemble this product. Take it to a qualified service person when service or repair work is required. Opening or removing covers may expose you to dangerous voltage or other risks. Incorrect reassembly can cause electric shock when this product is subsequently used.

6. Operating the unit in an equipment rack

If you plan to install the Torrent VCG in an equipment rack, take the following precautions:

(a) Ensure there is sufficient airflow around the unit.

(b) Ensure electrical circuits are not overloaded; consider the nameplate ratings of all the connected equipment and ensure you have overcurrent protection.

(c) Ensure the equipment is properly grounded, particularly any equipment connected to a power strip.

(d) Do not place any objects on top of the Torrent VCG.

7. Browsers

Both Netscape Navigator® and Microsoft Internet Explorer® have bugs that can cause intermittent, unexplained failures. When using a Web browser to interact with your Torrent VCG, you may occasionally experience a browser failure. Released product versions of the browsers are usually more reliable than beta versions, and later versions typically work the most reliably. A browser program failure, although annoying, does not adversely affect your Torrent VCG's data. The Torrent VCG has been tested with both Netscape Navigator and Microsoft Internet Explorer and the list of compatible browsers can be found in Appendix E: Client Requirements.

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General Installation

Torrent VCG Overview

1

This section introduces you the reader, and the network administrator to the concept and capabilities of the Torrent VCG. This chapter provides you with the understanding with which StarBak Communications addressed the challenges that were described to us by our customers.

1.1 What is the Torrent VCG?

The Torrent VCG is a videoconferencing to streaming media gateway appliance. It is reliable and simple to use. It utilizes a variant of the Linux operating system, but with only those components necessary for streaming videoconference content over a data network.

1.2 What Does the Torrent VCG Do?

The Torrent VCG has been designed specifically to enable streaming and recording of H.323 compliant videoconferences over intranets and the Internet.

If you are familiar with the business of videoconferencing and that of video streaming over IP, you will be quick to understand what the Torrent VCG does for the business or university that chooses to stream their videoconferences.

First, think of the physical server itself: A processor, hard disk, network interface, serial console, and some memory. Basically, the Torrent VCG is a simple webserver. Utilizing this hardware, we have used our in-house written RTP/RTSP (Real Time Protocol/Real Time Streaming Protocol) and MMS (Microsoft Media Server) video servers from our Torrent OSA Origin Streaming Appliance and applied it to the Torrent VCG. The video server module uses RTP/RTSP (RTSP for short) transport over the network. The RTP/RTSP and MMS modules can stream live and archived H.323 video-

conference streams to the Apple QuickTime media player, the Real One Player, and the Windows Media Player.

The Torrent VCG acts as an endpoint in an H.323 conference call. It can send and receive direct calls from another H.323 compliant endpoint, and can also send and receive calls from an H.323 compliant Multi-Point Control Unit (MCU). Once these calls have been made or received, the Torrent VCG converts the video into RTSP streams and sends them over the network to any desktop or laptop that has Apple QuickTime, Real One, or Windows Media players. At the same time, the Torrent VCG allows the administrator to archive these files using the Torrent VCG's Videoconference Archive Technology.

Above the server modules resides the administration interface for the entire appliance. The server module and the Line Management System are controlled through this interface. It is used by the administrator to connect and manage H.323 videoconference calls, to archive those calls for later viewing, and for viewing the logs from specific periods of use. These features are described in the following chapters.

1.3 Torrent VCG Users

The Torrent VCG creates three different levels of users. The administrator, moderator, and viewer are all different levels of operation within the Torrent VCG.

The administrator is the landlord of the Torrent VCG. The administrator gains all the functions of the Torrent VCG such as log access, file exporting, file deletion, placing calls, recording calls, etc. The main feature that separates the administrator from the moderator is that the administrator has the ability to create moderator accounts to reside under his control. Through logging and bandwidth monitoring the administrator can track the use of the Torrent VCG and care for its use.

The moderator has all the abilities of the administrator except the ability to change the system settings, such as changing the license key, restarting the H.323 module, creating other moderators, and more importantly they do not have access to the security features of the Torrent VCG.

Viewers are the people who will watch the streams from the stream catalog. They can watch live calls in progress or watch archived calls. They only have access to these calls upon permission from the administrator or moderator.

The following chapters will outline and describe the use of the box for all of the users of the Torrent VCG.

2 Installation

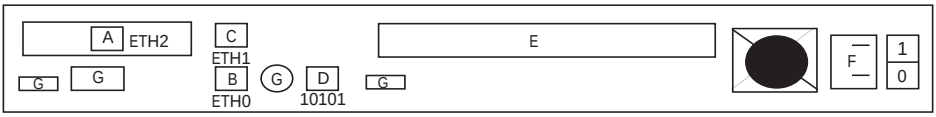
Packing Contents

- Torrent VCG
- RJ45 straight through cable
- RJ45 to DB9 serial crossover adaptor
- Power Cable
- Manual (This Document)
- License Key Document
- Warranty Information
- Registration Card

Items required for installing the Torrent:

1. A Phillips head screwdriver (if you plan to rack mount the Torrent VCG)
2. A computer which can be used as a serial console. This computer must have a serial terminal emulation package or a serial dumb terminal.
3. The included serial adaptor cable to connect the computer or terminal to the Torrent VCG and the RJ45 straight through cable.
4. A vacant 120 volt power outlet.
5. An RJ45 Ethernet connection to your network.
6. An Assistant for mounting the Torrent VCG.
7. This Manual

Figure 2.1: Rear Panel of Torrent VCG



A. Eth2 -- Gig Ethernet Port
B. Eth0 -- 100 Mbps Ethernet Port
C. Eth1 -- 100 Mbps Ethernet Port
D. 10101 -- Serial Port
E. Auxiliary Card Port
F. Rear Fan
G. Possible Future Enhancements

2.1 Physical Installation

This section describes the process of placing your Torrent VCG into a computer rack, and how to connect the serial and network interfaces and the power cord.

1. Remove the packaging material surrounding the Torrent VCG.
2. Inspect the Torrent VCG for obvious exterior damage caused during shipping.
3. Have an assistant hold the Torrent VCG in the rack where you want to place it. The rear end of the Torrent VCG should be the first into the rack. The front end with the StarBak logo should be at the front of the rack.

NOTE: Check to make sure you can access the serial, RJ45 Ethernet, and power connections on the rear panel.

4. Insert the mounting screws for your rack through the mounting ears of the Torrent VCG and into your rack to secure the Torrent VCG.
5. Attach the RJ45 straight through cable into port D (listed above)
6. Connect the DB9 plug into the serial console computer.
7. Connect the RJ45 straight through cable to the RJ45 to DB9 adaptor.
8. Connect the RJ45 ethernet cable to one of ports A-C (listed above). Plug the other end of the RJ45 ethernet cable into your supplied ethernet connection (router, hub, switch, etc.)
9. Connect the power cord from the Torrent VCG to power outlet.

NOTE: The Torrent VCG can only use one ethernet port at a time. The Torrent VCG comes from the factory configured to DHCP upon startup using eth2. This is the Gigabit ethernet port for the Torrent VCG.

If you have purchased a Torrent VCG capable of using more than 100Mb/s you should use the eth2 port on the back panel. When using a port other than eth2 at first installation of the Torrent VCG, you will need to manually change the configuration of the Torrent to DHCP from the intended port.

To DHCP or manually configure the Torrent VCG for your network, refer to chapter 3.

10. Connect the power cord supplied to the back of the Torrent VCG.
11. Plug the power cable into an available power outlet.
12. Make sure the switch on the back of the Torrent VCG is in the on setting.

13. Press the power button on the front panel of the Torrent chassis. This will cause the Torrent VCG to power on.

FINISH: You are now done with the physical installation of your Torrent VCG.

TABLE 1: Serial Port to RJ-45 Pin Outs

DB9	RJ-45
Shell	Unused
1	Unused
2	3
3	6
4	7
5	4
6	2
7	8
8	1
9	Unused
Unused	5

2.1 PHYSICAL INSTALLATION

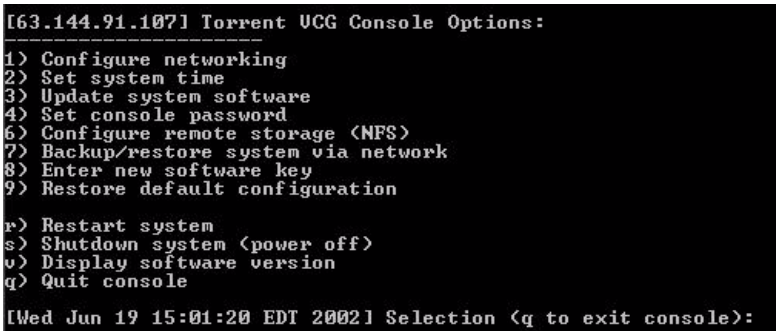
3 Initial Configuration

The Torrent VCG uses a serial console to configure the Torrent VCG for your network, to set the internal clock, to update your software, and to change your serial console password. The Torrent VCG's Serial Console is also used for shutting down the system. Normal usage of the Torrent VCG does not require a serial console connection. Normal use is obtained through the web interface of the Torrent VCG.

3.1 Establishing a Serial Console Interface

You will need a serial console connection to the Torrent VCG when you first install the unit. The rest of this section assumes that you have a serial interface program installed on the computer you are using for your serial console interface. (i.e. Hyperterminal for Windows, Zterm for Macintosh, Minicom for LINUX)

Figure 3.1: Torrent VCG Serial Console


[63.144.91.107] Torrent VCG Console Options:
1) Configure networking
2) Set system time
3) Update system software
4) Set console password
6) Configure remote storage (NFS)
7) Backup/restore system via network
8) Enter new software key
9) Restore default configuration
r) Restart system
s) Shutdown system (power off)
v) Display software version
q) Quit console
[Wed Jun 19 15:01:20 EDT 2002] Selection (q to exit console):

3.1.1 Serial Interface Settings

The following list defines settings that you will need to be established within your serial interface program.

- Bits per second: 9600
- Data bits: 8
- Parity: none

•Flow Control: none
•Stop bits:1
•Com Port: This will depend on which port you are using on your serial console interface computer.

NOTE: The backspace key should be configured to send delete. If this is not configured correctly, the combination of [Ctrl] + W will work as well.

3.1.2 Logging in to the Torrent VCG Serial Console

NOTE: The approximate boot time for the Torrent VCG is approximately 1.5 minutes.

1. Plug your null modem serial cable into the back of the Torrent VCG.
2. Start the serial interface program on your serial console interface computer.
3. Configure the serial interface program for connection to the Torrent VCG. Refer to Section 3.1.1 for the settings you will need to properly connect with the Torrent VCG.
4. Once the configuration is complete, you need to initiate a session with the Torrent VCG. Press Enter once the session is started.
5. Type the console password at the password prompt. (The default password for the Torrent VCG is **administrator**.) The "Torrent VCG Console Options" screen will appear. This is the Main Menu of the Torrent VCG's serial console interface.

NOTE: To invoke the default response for console prompts, press Enter at the command prompts.

FINISH: You now have serial console access to your Torrent VCG.

3.2 Torrent VCG Network Configuration

You may configure the Torrent VCG in either of two ways: automatic configuration or manual configuration. If your network has a DHCP server you will be able to use the automatic configuration section (section 3.2.1). If your network does not have a DHCP server you will need to use the manual configuration (section 3.2.2).

3.2.1 Automatic Configuration

The "Torrent VCG Console Options" Main Menu should be on the screen of your serial console at this point. (Refer to Figure 3.1)

1. Type: 1 then press Enter to open the Configure networking submenu. The next prompt to appear is: Hostname (default = localhost)

NOTE: You must make sure that your hostname corresponds with the obtained IP Address entered in the DNS Server. If you do not have a DNS Server, the IP Address of the Torrent VCG is a valid replacement.

2. Type the hostname you want for your Torrent VCG. Press Enter. The next prompt to appear is: Use BOOTP/DHCP [y/n] (default = yes)
3. Type: y then press Enter. This command configures the Torrent VCG to automatically configure itself from the network. The next screen to appear will be the Console Options Main Menu.
4. You will be prompted to choose between different DNS hostnames for your Torrent VCG. Please read the preceding note.
5. Copy the IP address that is found at the top left corner of the Console Options Main Menu. You will need to use it in Chapter 4 step 2.

FINISH: Your Torrent VCG is now configured to your network. Proceed to section 3.3

3.2.2 Manual Configuration

Use this section if your network does not have a DHCP server. The Torrent VCG Console Options Main Menu should be on the screen of your serial console at this point. (Refer to Figure 3.1.)

Items required for initial configuration of the Torrent VCG (Consult your network administrator for the following items):

- An available IP address to give to the Torrent VCG
- Netmask
- Broadcast address
- Gateway address (only required if your Torrent VCG will be accessible from outside your local network)
- Primary nameserver address (optional)
- Secondary nameserver address (optional)
- Either an ntp server or an rdate server address (optional)

1. Type: 1 then press Enter to open the Configure networking sub-menu. The next prompt to appear is: Hostname (default = local-host)

NOTE: You must make sure that your hostname corresponds with the obtained IP Address entered in the DNS Server. If you do not have a DNS Server, the IP Address of the Torrent VCG is a valid replacement.

2. Type the hostname you want for your Torrent VCG. Press Enter. The next prompt to appear is: Use BOOTP/DHCP [y/n] (default = yes)
3. Type: **n** then press **Enter.** The next prompt to appear is: IP address:
4. Type the IP address designated for your Torrent VCG. Press **Enter**. The next prompt to appear is: Netmask (default = 255.255.255.0):
5. Type the netmask IP address for your Torrent VCG. Press **Enter.** The next prompt to appear is: Broadcast address (default = 192.168.1.255):
6. Type the broadcast IP address for your Torrent VCG. Press **Enter**. The next prompt to appear is: Gateway address:

7. Type the gateway IP address for your Torrent VCG. Press **Enter**. The next prompt to appear is: Primary nameserver:
8. Type the IP address of the primary nameserver (DNS) for your Torrent VCG. Press **Enter**. The next prompt to appear is: Secondary nameserver:

NOTE: The secondary nameserver address is not required but can be included for redundancy.

9. Type the IP address of the secondary nameserver for your Torrent VCG. Press **Enter.** The next screen to appear is the Torrent VCG Console Options Main Menu.
10. Copy the IP address that is found at the top left corner of the Console Options Main Menu. You will need to use it in Chapter 4, Step 2.

FINISH: Your Torrent VCG is now configured to your network. Proceed to section 3.4.

3.3 Upgrading Software

The serial console provides the Torrent Administrator with the opportunity to upgrade the software to more current releases and versions. This is done by acquiring a software image. The image must reside on either a http, ftp, or SMB/CIFS server. Once the image is on the server the Torrent is then given the location of the software image. After the Torrent is directed to the software image it will connect to the host server, retrieve the software update, load the update, then reboot once finished.

3.3.1 Using http to update Your Torrent VCG Software

1. Connect to the Torrent VCG serial console using the methods outlined in Section 3.1.
2. Enter the Serial Console password to activate the Serial Console Menu.
3. Press 3 then Enter to select the Software Upgrade selection.
4. Press **1** then **Enter** to choose the http upgrade method.
5. Enter the URL of the system image you wish to download into the Torrent VCG.

NOTE: The Torrent VCG takes several minutes to upgrade to the latest software version. If the Torrent VCG gets interrupted during the install, the old image is re-loaded back onto the Torrent VCG. Please consult StarBak before you begin the upgrade process.

3.3.2 Using ftp to update Your Torrent VCG Software

1. Connect to the Torrent VCG serial console using the methods outlined in Section 3.1.
2. Enter the Serial Console password to activate the Serial Console Menu.
3. Press 3 then Enter to select the Software Upgrade selection.
4. Press **1** then **Enter** to choose the ftp upgrade method.
5. Enter the URL of the system image you wish to download into the Torrent VCG.

NOTE: The Torrent VCG takes several minutes to upgrade to the latest software version. If the Torrent VCG gets interrupted during the install, the old image is re-loaded back onto the Torrent VCG. Please consult StarBak before you begin the upgrade process.

3.3.3 Using File Sharing to Upgrade Torrent VCG Software

1. Connect to the Torrent VCG serial console using the methods outlined in Section 3.1.
2. Enter the Serial Console password to activate the Serial Console Menu.
3. Press 3 then Enter to select the Software Upgrade selection.
4. Press **2** then **Enter** to choose the ftp/file sharing upgrade method.
5. Follow the steps provided to point the Torrent VCG to the intended folder from which you wish to share.

NOTE: You must download the Torrent VCG upgrade file to a shared file directory or FTP directory before you begin the upgrade process.

3.4 Setting the Time Zone and System Time

This section will describe how to set the local time zone (section 3.3.1) for your Torrent VCG, and how to set the internal system clock (section 3.3.2). You can set the time manually or synchronize the time with a network time server.

3.4.1 Setting the System Time Using ntp

If you are proceeding to this section from section 3.2 your serial console display should show the Torrent VCG Console Options Main Menu. (Refer to Section 3.1)

1. Type: **2** then press Enter. The next prompt to appear is: Timezone currently set to US/Eastern; Modify [y/n] (default = no):
2. If your Torrent VCG is located in the eastern United States time zone press Enter and go to section 3.4.2. If not, go to step 3.
3. Type: **y** then press Enter. You will now see a list of 6 choices.
4. Type the number of your choice. Press Enter. You will now see a new list of choices.
5. Type the number of your choice. Press Enter. You will now see a list of three choices for how to set the time on your Torrent VCG.
6. Type: **1** then press **Enter**. The next prompt to appear is: ntp server address:
7. Type the address of your ntp server. The next screen to appear is the Torrent VCG Console Options Main Menu.

FINISH: Your Torrent VCG's system clock is now set. Proceed to section 3.5.

3.4.2 Setting the System Time Using rdate

1. Type: **2** then press Enter. The next prompt to appear is: Timezone currently set to US/Eastern; Modify [y/n] (default = no):
2. If your Torrent VCG is located in the eastern United States time zone press Enter and go to section 3.4.2. If not, go to step 3.

3. Type: **y** then press Enter. You will now see a list of 6 choices.
4. Type the number of your choice. Press Enter. You will now see a new list of choices.
5. Type the number of your choice. Press Enter. You will now see a list of three choices for how to set the time on your Torrent VCG.
6. Type: **2** then press **Enter**. The next prompt to appear is: rdate server address:
7. Type the address of your rdate server. The next screen to appear is the Torrent VCG Console Options Main Menu.

FINISH: Your Torrent VCG's system clock is now set. Proceed to section 3.5.

3.4.3 Setting the System Time Manually

1. Type: **2** then press Enter. The next prompt to appear is: Time-zone currently set to US/Eastern; Modify [y/n] (default = no):
2. If your Torrent VCG is located in the eastern United States time zone press Enter and go to section 3.4.2. If not, go to step 3.
3. Type: **y** then press Enter. You will now see a list of 6 choices.
4. Type the number of your choice. Press Enter. You will now see a new list of choices.
5. Type the number of your choice. Press Enter. You will now see a list of three choices for how to set the time on your Torrent VCG.
6. Type: **3** then press **Enter.** The next prompt to appear is: Date (mm/dd/yyyy) (default = mm/dd/yy):
7. Type the current date in the format (mm/dd/yyyy). The next prompt to appear is: Time (hh:mm:ss) (default = hh:mm:ss):
8. Type the current time in the format (hh:mm:ss). The next screen to appear is the Torrent VCG Console Options Main Menu.

FINISH: Your Torrent VCG's system clock is now set. Proceed to section 3.5.

3.5 Changing the Console Password

StarBak recommends that you change the console password immediately upon receiving your Torrent VCG. The serial console password and the web interface password are kept separately.

1. The Torrent VCG Console Options Main Menu should be on the screen of your serial console at this point. (Refer to Section 3.1)
2. Type: **4** then press **Enter**. The next prompt to appear is: Current console password:
3. Type your serial console password then press **Enter**. The default serial console password is **administrator**. The next prompt to appear is: New console password:
4. Type the password you wish to use for console access. Press **Enter.** The next prompt to appear is: Retype console password:
5. Retype the password for confirmation purposes. Press Enter. The next screen to appear is the Torrent VCG Console Options Main Menu.

WARNING: Please write this new password down in a safe place. Loss of this password could result in loss of data from your box. You will need to remember this password for future use.

FINISH: Your new password has been set. Proceed to section 3.6.

3.6 NFS Mounted Storage

The Torrent VCG provides the administrator with the ability to attach NFS mounted storage. From the Remote Storage Options Menu, the administrator has the ability to create and delete an NFS Mount as well as manually attach and detach storage.

1. The Torrent VCG Console Options Main Menu should be on the screen of your serial console at this point. (Refer to Section 3.1)
2. Type **6** then press **Enter**. The next menu to appear is the Remote Storage Options Menu. (Refer to Figure 3.2)

Figure 3.2: Remote Storage Options Menu

Torrent Remote Storage Options:
1) Create a new NFS mount
2) Change options for a NFS mount
3) Remove an existing NFS mount
4) Attach an NFS mount
5) Detach an NFS mount
q) Return to console

3.6.1 Creating a New NFS Mount

1. Type **1** to select "Create a New NFS Mount" from the Remote Storage Options Menu. Press **Enter**. (See Figure 3.2)
2. Provide a label that will uniquely identify the NFS mount profile. Press **Enter**.
3. Enter the hostname of the NFS Server you wish the Torrent VCG to attach to.

EXAMPLE: `nfsserver.yourdomain.com`

4. Provide the Remote Path for the NFS mount. Press **Enter**.

EXAMPLE: `home/swanson/samsonite`

5. Provide the name of the directory that you wish to designate as your NFS mount. (This will be the directory that appears on the Torrent VCG.) Press **Enter**.
6. Select whether the Torrent will attach to the NFS on bootup. Select yes if you wish for the Torrent VCG to automatically attach to the NFS mount every time you reboot the Torrent VCG. By selecting yes, the NFS mount will not appear for the first time until after the next reboot of the Torrent VCG. Select No if you wish to manually attach the NFS mount. (See sections 3.6.4 and 3.6.5 on attaching and detaching an NFS mount.

FINISH: Your new NFS mount has been created.

3.6.2 Changing Options for an NFS Mount

1. Type **2** to select Change Options for an NFS Mount" from the Remote Storage Options Menu. Press **Enter**.
2. Enter the label of the NFS mount profile you wish to change. Press **Enter**.
3. Enter the new label for the NFS mount profile. Press **Enter**.
4. Enter the new remote host for the NFS mount. Press **Enter**.
5. Enter the new remote path for the NFS mount. Press **Enter**.
6. Enter the new directory for the NFS mount. Press **Enter**.
7. Enter "y" or "n" to decide whether you want the NFS mount to connect on bootup. Select yes if you wish for the Torrent VCG to automatically attach to the NFS mount every time you reboot the Torrent VCG. By selecting yes, the NFS mount will not appear for the first time until after the next reboot of the Torrent VCG. Select No if you wish to manually attach the NFS mount. (See sections 3.6.4 and 3.6.5 on attaching and detaching an NFS mount.

FINISH: Your NFS mount has been changed.

3.6.3 Removing an Existing NFS Mount

1. Type **3** to select "Remove an Existing NFS Mount" from the Remote Storage Options Menu. Press **Enter**.

2. Enter the label of the NFS mount profile you wish to remove. Press **Enter**.

NOTE: You must make sure the NFS mount is detached before removal.

FINISH: You have deleted an NFS Mount.

3.6.4 Attaching an NFS Mount

1. Type **4** to select "Attach an NFS Mount" from the Remote Storage Options Menu. Press **Enter**.
2. Enter the label of the NFS mount you wish to manually attach. Press **Enter.**

FINISH: You have attached your NFS mount.

3.6.5 Detaching and NFS Mount

1. Type **5** to select "Detach and NFS Mount" from the Remote Storage Options Menu. Press **Enter**.
2. Enter the label of the NFS mount you wish to manually detach. Press **Enter**.

FINISH: You have detached your NFS mount.

3.7 Entering a New Software Key

With the use of Software keys StarBak Communications provides the administrator the opportunity to add new lines to their Torrent VCG. The software key needs to be in place before the Torrent VCG will function correctly. The administrator can enter this code into the serial console or directly into the web interface.

1. The Torrent VCG Console Options Main Menu should be on the screen of your serial console at this point. (Refer to Section 3.1)
2. Type **8** into the serial console. Press **Enter**.
3. Enter in the software key given to you from StarBak Communications. This is case sensitive so make sure you carefully enter in the code key. Press **Enter** when done.

FINISH: The Torrent VCG Serial Console will now display the Main Menu without displaying the system is offline.

3.8 Exiting the Serial Console Interface

The Initial Configuration of your Torrent VCG is now finished. You may log out of the serial console.

1. The Torrent VCG Console Options Main Menu should be on the screen of your serial console at this point. (Refer to Figure 3.1)
2. Type: **q** then press **Enter**.
3. This will end your console access, but the serial console interface will still be connected.

FINISH: You are now logged out of the Torrent VCG console and ready to proceed to Section 2: Web Interface, starting with Chapter 4.

Administrator Section:
Web Interface

4 Interface Access

This Chapter explains how to use your web browser to access the Torrent VCG's Web Interface. Please note that the passwords for the web interface and the serial console are separate passwords.

4.1 Accessing the Web Interface

1. Open a web browser on a computer that has access to the network where your Torrent resides.
2. Type the IP address (port number 8080) of your Torrent VCG in the location box of the browser. Example: http://71.132.99.22:8080

Or

2. Type the DNS name that you have assigned to your Torrent. Example: http://TorrentYourDomain.com:8080
3. Torrent Login is the next screen to appear. (Refer to Figure 4.1)

Figure 4.1 Torrent VCG Login Page

4. Click the mouse cursor in the field labeled: Login
5. Type in your username, **administrator** is the default user.
6. Click the mouse cursor in the field labeled: Password
7. Type in the password for your username, **administrator** is the default password for the administrator account
8. Click the Login button. The next screen to appear is: Torrent VCG Administration Menu. (Refer to Figure 5.1)

FINISH: You are now logged into the Torrent VCG Administration Interface. You will perform the operations described in Chapters 5 - 12 from the Administration Interface. Proceed to Chapter 5 to learn how to operate the Torrent VCG's Administration Options.

Address Book

5

The address book allows the Users of the Torrent VCG to create call templates. These call templates can be called upon later from the Place Call Page of the Web Interface. The address books can be used to specify the call format, call addresses, slide sets, call descriptions, recording options, and security

5.1 Adding Address Book Entries

1. Select **Address Book** from the Web Interface Menu located on the left side of the web interface.
2. Select **Add** from within the Address Book Submenu located on the left side of the web interface.
3. Enter the address book entry information into the designated fields. Press **Add To Address Book**.

NOTE: Complete descriptions of Address Book Entry Fields can be found in section 5.4 of this chapter.

FINISH: You have successfully changed the email address of the current user.

5.2 Edit Address Book

This option allows Torrent VCG Users to change the existing address book entries.

1. Select **Address Book** from the Web Interface Menu located on the left side of the web interface.
2. Select **Edit** from within the Address Book Submenu located on the left side of the web interface.
3. Edit the desired fields within the existing address book entry.
4. To change the existing entry, press **Update Address Book**.
5. To make these changes into a new address book entry, press **Add As New Address Book Entry**.

FINISH: You have successfully chosen the default media player for your account.

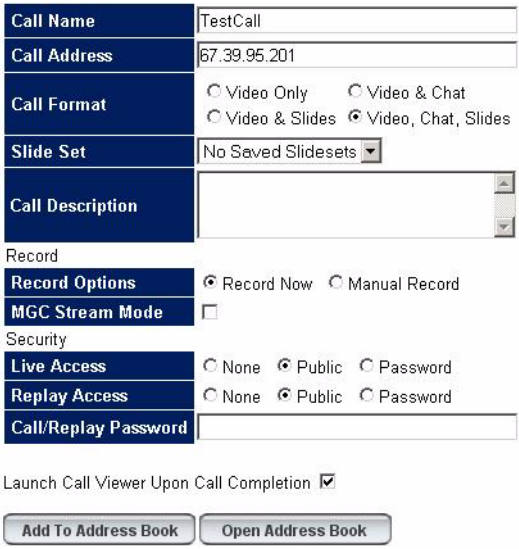
5.3 Deleting Address Book Entries

Once a User no longer needs to use a saved address book entry, the entry may be deleted to save room on the Torrent VCG.

1. Select **Address Book** from the Web Interface Menu located on the left side of the web interface.
2. Select **Delete** from within the Address Book Submenu located on the left side of the web interface.
3. Press the DELETE link of the desired address book entry from within the address book table.

FINISH: You have successfully deleted an address book entry from the Torrent VCG.

Figure 5.1: Address Book Entry Page



5.4 Address Book Entry Field Descriptions

Call Name: This field is used to uniquely describe the address book entry for storage within the Address Book.

Call Address: The administrator uses this field to enter in the appropriate address of the destination endpoint. This field accepts E.164 Aliases, H.323 Aliases, E-mail Aliases, and URL Aliases.

Bitrate: The bitrate field represents the maximum bitrate the Torrent VCG will accept for this particular address book entry. If the destination endpoint is configured for a lower bitrate, then the Torrent VCG will negotiate down to that bitrate.

Call Format: The administrator can choose which type of call setup within this field. This is helpful when a particular endpoint is usually used for a certain type of call.

Slide Set: This drop down menu allows the administrator to choose which slide grouping to include with the videoconference.

Call Description: The administrator or user can use this field to enter a brief description of the conference that is being recorded.

MGC Stream Mode: This check box allows the Torrent VCG to compensate for using an Accord MGC in transcoding modes. The Accord MGC can cause audio and video to not be synchronized within the Torrent VCG streams. This mode allows for the correction of this problem.

Record Options: The "Record Now" option is for recording conferences as soon as the VCG is connected. The "Manual Record" option is so the administrator or moderator can start and stop recording the conferences during the calls.

Live Access: The "None" option allows the moderator to connect to a videoconference without streaming the conference out to the internet. This can be used to monitor conferences, or to just record a conference without streaming it live. The "Public" option allows the administrator to make the videoconference available for streaming to anyone who visits the catalog page. The "Password" option lets the administrator decide who can have access to the live streams by password protecting it before the call is placed.

Replay Access: The Replay Access field is used in the same manner as the Live Access field except for it applies to the archived file once it is created. This can be toggled later within the Saved Calls Section of the Torrent VCG (Chapter 11).

Password: This field is used for entering the password for the live and/or replay access of the current call.

My Account

6

The Torrent VCG features the ability for users to change their personal options within their account. A user can choose to change their Email address, their default Media Player, or change their password for the web interface.

6.1 Change Email

1. Select **My Account** from the Web Interface Menu located on the left side of the web interface.
2. Select **Change Email** from within the My Account Submenu located on the left side of the web interface.
3. Enter the new email address for the current user into the entry field provided. Press **Next Step**.

FINISH: You have successfully changed the email address of the current user.

6.2 Change Media Player

This option allows the user to change the default player that is used when placing a call from the call center. The user can select from the Windows Media Player, Real One Player, or the QuickTime Player.

1. Select **My Account** from the Web Interface Menu located on the left side of the web interface.
2. Select **Change Media Player** from within the My Account Submenu located on the left side of the web interface.
3. Select the default media player by checking the circle of the desired player. Press **Next Step**.

FINISH: You have successfully chosen the default media player for your account.

6.5 Change Line Settings

The My Account submenu allows the Administrator or User to change their Incoming Call Line Settings.

1. Select **My Account** from the Web Interface Menu located on the left side of the web interface.
2. Select **Change Line Settings** from within the My Account Submenu located on the left side of the web interface.
3. Select the line with which you wish to make changes. Press **Next Step**.
4. Make the changes to the designated entry fields. Press **Save Settings**.

FINISH: You have successfully changed the incoming call settings to one of your lines on the Torrent VCG.

6.4 Change Password

STARBAK Communications recommends users change their password upon first use for security reasons. Please store the new password in a safe place. This is your only access to the Web Interface.

1. Select **My Account** from the Web Interface Menu located on the left side of the web interface.
2. Select **Change Password** from within the My Account Submenu located on the left side of the web interface.
3. Enter the Old Password in the entry field provided.
4. Enter and verify the new password in the next two entry fields. Press **Next Step**.

7 Slide Management

The Torrent VCG features the ability for Users to upload Power Point Presentations or .jpg files to use as slide sets during videoconferences on the Torrent VCG.

7.1 Add a Slide Set

1. Select **Slide Management** from the Web Interface Menu located on the left side of the web interface.
2. Select **Add** from within the Slide Management Submenu located on the left side of the web interface.
3. Press the **Browse...** button to open up a window and search for the desired images for the slide set. This allows the User to search for image files from within their personal computer.

NOTE: The Torrent VCG accepts .jpg, .bmp, .gif, .png files for slide sets entries. You may also add a URL directly to the Slide URL List text box within this page.

4. Select the desired image file from within your computer. Press **Open**.
5. Press the **Upload File** button. The new file will show up in the Slide URL List text box.
6. Repeat steps 3 - 5 until the complete slide set is loaded into the Torrent VCG.
7. Enter a Slide Set Name into the designated entry field.
8. Enter a number into the Auto-Cycle entry field to adjust the amount of time between slide flips. If you wish to manually progress the slides, enter 0 into the entry field.
9. Press the **Save Slide Set** button.

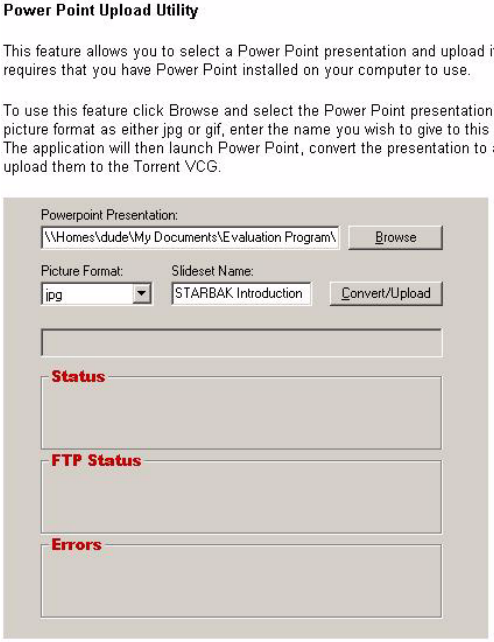
FINISH: You have successfully added a slide set to the Torrent VCG.

7.2 Upload Power Point Presentation

This option allows the user to change the default player that is used when placing a call from the call center. The user can select from the Windows Media Player, Real One Player, or the QuickTime Player.

1. Select **Slide Management** from the Web Interface Menu located on the left side of the web interface.
2. Select **Upload Power Point Presentation** from within the Slide Management Submenu located on the left side of the web interface.
3. Press Browse on the StarBak Power Point Upload Manager.
4. Highlight the Power Point presentation you wish to upload to the Torrent VCG. Press Open.
5. Choose the image format within the StarBak Power Point Upload Manager.
6. Enter the slideset name into the designated entry field.
7. Press Convert/Upload.

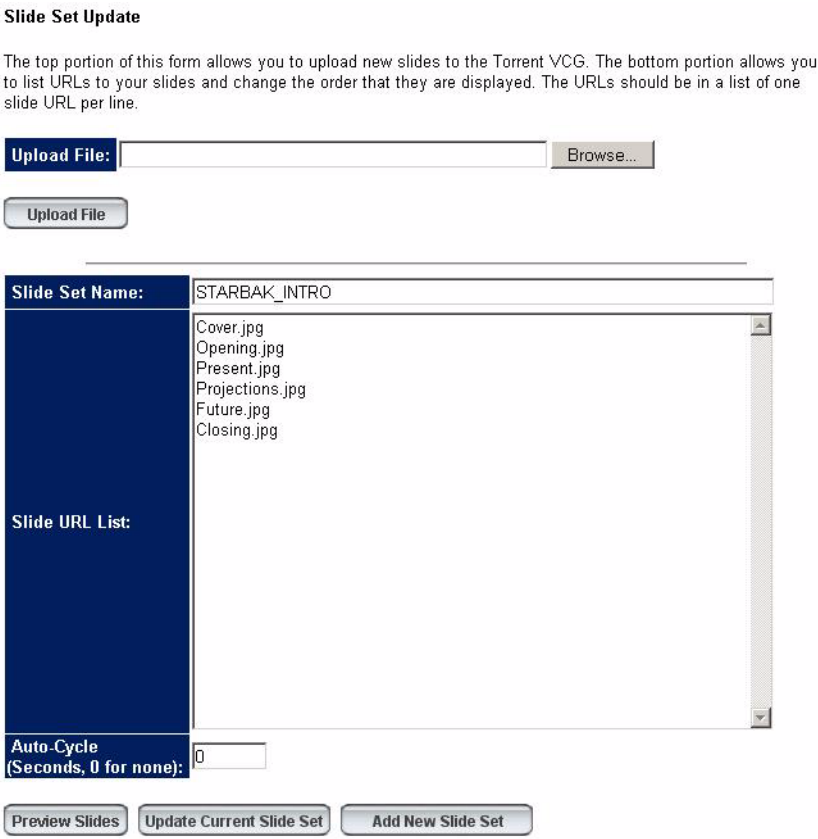
Figure 7.1: STARBAK Power Point Upload Manager


Power Point Upload Utility
This feature allows you to select a Power Point presentation and upload it to the Torrent VCG as a slideset. It requires that you have Power Point installed on your computer to use.
To use this feature click Browse and select the Power Point presentation you wish you upload. Select your picture format as either jpg or gif, enter the name you wish to give to this slideset, then click Convert/Upload. The application will then launch Power Point, convert the presentation to a series of images, and then will upload them to the Torrent VCG.
Powerpoint Presentation:
\\Homes\dude\My Documents\Evaluation Program\
Browse
Picture Format:
jpg
Slideset Name:
STARBAK Introduction
Convert/Upload
Status
FTP Status
Errors

7.3 Edit Slide Set

1. Select **Slide Management** from the Web Interface Menu located on the left side of the web interface.
2. Select **Edit** from within the Slide Management Submenu located on the left side of the web interface.
3. Select the slideset you wish to edit.
4. Using the instructions from Section 7.1, make changes to the existing slide set.
5. Press **Update Current Slideset**.

Figure 7.2: Edit Slide Set


Slide Set Update
The top portion of this form allows you to upload new slides to the Torrent VCG. The bottom portion allows you to list URLs to your slides and change the order that they are displayed. The URLs should be in a list of one slide URL per line.
Upload File:
Browse...
Upload File
Slide Set Name:
STARBAK_INTRO
Slide URL List:
Cover.jpg
Opening.jpg
Present.jpg
Projections.jpg
Future.jpg
Closing.jpg
Auto-Cycle (Seconds, 0 for none):
0
Preview Slides
Update Current Slide Set
Add New Slide Set

7.4 Delete Slide Set

1. Select **Slide Management** from the Web Interface Menu located on the left side of the web interface.
2. Select Delete from within the Slide Management Submenu located on the left side of the web interface.
3. Select the slideset you wish to delete. Press **Delete**.

System Configuration 8

8.1 Call Rollover

Call Rollover configuration allows you to accept incoming IP calls. When turned on, incoming IP calls will roll from a busy line to the first available line for the user selected.

If the user you select for call rollover has fewer lines than the number of licensed lines for the Torrent VCG, the max number of incoming calls is the number of lines for that user. Stated another way, the maximum number of incoming IP calls is determined by the number of lines the selected user owns.

NOTE: It is not recommended to use incoming call rollover for a Torrent VCG that is registered to a gatekeeper or that has more than just one or two users. To turn on the call rollover feature, use the following steps.

:1. Select **System Configuration** from the Administration Interface Menu.
:2. Select **Call Rollover** from within the System Configuration submenu.
:3. Using the **Enable IP Call Rollover** drop down menu, select **Yes**.
:4. Using the **Select User** drop down menu, select the user you wish to receive incoming calls. Press **Submit**.

FINISH: You have successfully adjusted the telnet access for the Torrent OSA.

8.2 Customizing the Interface

The Torrent VCG allows the administrator to change the logo that is displayed in the call catalog and within the web interface. This allows the Torrent to be customized for a particular company or institution.

8.2.1 Changing the Logo

The Torrent OSA allows the administrator to add a company or affiliated logo to the web interface.

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **Customize Interface** from within the System Configuration submenu.
3. Press the **Browse** button to locate the desired logo.
4. Once you find the logo, highlight the logo and press the **Open** button to select the logo.
5. Press the **Upload File** button to load the image to the Torrent OSA.

FINISH: You have successfully personalized the Torrent OSA Interface.

8.2.2 Changing the Support Email Address

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **Customize Interface** from within the System Configuration submenu.
3. Type the new support email into the designated entry field. Press **Change Support Email**.

FINISH: You have successfully changed the support email address.

8.3 Gatekeeper Registration

The Torrent VCG can register with a gatekeeper as an endpoint or as a service. Service registration allows H.323 zone administration of the Torrent VCG.

NOTE: The number of aliases that can be registered by the Torrent VCG is limited to 36 when NOT in service registration mode. Because of this, STARBAK Communications recommends the use of service registration whenever possible.

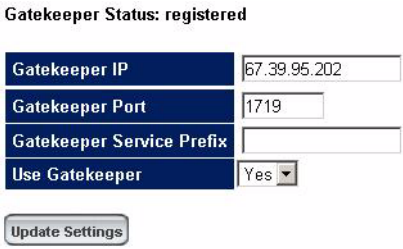
1. Select **System Configuration** from the Administration Interface Menu.
2. Select **Gatekeeper Registration** from within the System Configuration submenu.
3. Enter the IP address for the Gatekeeper with which you plan to register.
4. Enter the Gatekeeper Port into the designated entry field. The default Port used is port 1719.
5. Enter the Gatekeeper Service Prefix into the designated entry field.

NOTE: Step 5 is optional, but not using service registration could prevent the use of multiple lines within the Torrent VCG. You may automatically discover a nearby gatekeeper by leaving the entry fields blank.

6. Use the drop down menu to enable the use of the gatekeeper.
7. Press **Update Settings**.

FINISH: You have successfully registered with a gatekeeper.

Figure 8.1: Gatekeeper Registration



8.4 License Information

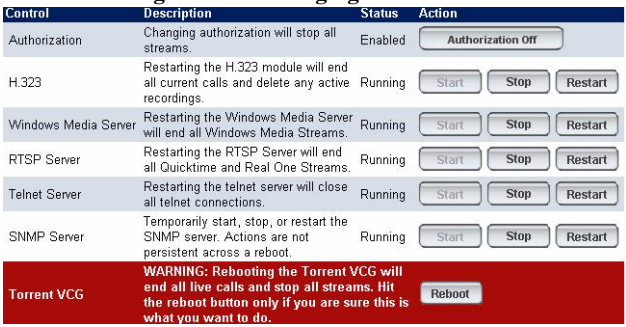
Within the web interface, the administrator can view the license settings of the Torrent VCG. These settings display the current valid license key, along with the MAC Address, number of lines authorized on the Torrent VCG, and the total bandwidth authorized. This page also allows the administrator to update the license key for upgrades or changes in the key over time. To enter in your license key use the following steps.

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **License Information** from within the System Configuration submenu.
3. Enter the new license key in the entry field provided. Press **Enter License Key**.
4. The next page will display the result of the new license key, whether the key is valid, and the new settings to the Torrent VCG.

8.5 Managing Services

The administration interface allows the administrator to start and stop different services within the Torrent VCG so that it does not have to be completely rebooted. The different services within the Torrent VCG are: Authorization, the H.323 Module, Windows Media and RTSP streaming servers, the Telnet Server, and the SNMP Server. The administrator can also reboot the Torrent VCG from the Manage Services section of the web interface. WARNING: Stopping or restarting any services while they are in use will result in that service being interrupted for the end-user.

Figure 8.2: Managing Services



8.6 Multicast Range Configuration

The Multicast Range Configuration is used to determine which client machines receive a multicast stream. If the IP Address of the client machine falls within the multicast range, then that machine receives a multicast stream. The Administrator can set 4 different multicast ranges within the Torrent VCG. However, any combination of the four can be in use.

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **Mulicast Range Configuration** from within the System Configuration submenu.
3. Enter the IP Address for the start of the Multicast Range into the designated entry field.
4. Enter the IP Address for the end of the Multicast Range into the designated entry field.
5. Repeat for other multicast ranges. Press **Finish**.

FINISH: You have successfully changed the multicast settings of your Torrent VCG.

8.7 SNMP Configuration

SNMP stands for Simple Network Management Protocol and it is the standard protocol used to exchange network management information. This information is used to monitor the status of the machines on a network. The Torrent VCG can be enabled to communicate with an SNMP station so that information can be attained for a network manager to monitor.

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **SNMP Configuration** from within the System Configuration submenu.
3. Enter a text description of where the Torrent VCG is located within the designated entry field.
4. Enter a contact email for the administrator of the Torrent VCG.
5. Using the drop down menu, determine whether the SNMP controls are enabled on boot.
6. Enter the Read Only Community String using the designated entry field.
7. Enter the Read Only Netmask using the designated entry field.
8. Enter the Read/Write Community String using the designated entry field.
9. Enter the Read/Write Netmask using the designated entry field.
10. Enter the Trap Destination Host name using the designated entry field.
11. Enter the Trap Community String using the designated entry field.
12. Enter the Trap Remote Port using the designated entry field.

NOTE: Please refer to http://www.faqs.org/rfcs/rfc3300.html for further explanation on the SNMP RFC.

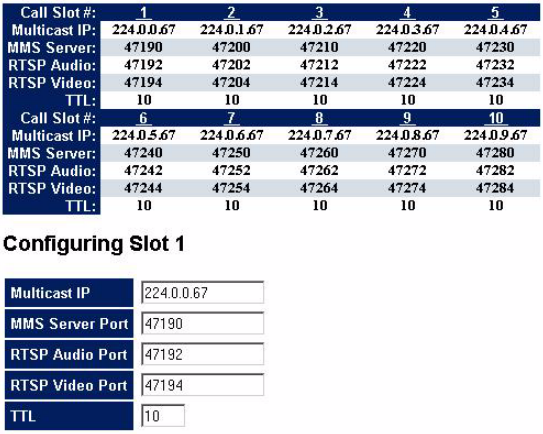
8.8 Streaming Configuration

The Streaming Configuration allows the administrator to change the Multicast IP Address, and the ports used for streaming. Each line available within the Torrent VCG has a slot that is assigned to it. All the slots can be configured individually to the Administrator's preferences to ensure there are no conflicting settings.

1. Select **System Configuration** from the Administration Interface Menu.

2. Select **Streaming Configuration** from within the System Configuration submenu.
3. Read the message provided on the screen, then press **Continue**.
4. Click on the Call Slot # you wish to change.
5. Enter in the Multicast IP Address that will be used to stream the multicast signal into the designated entry field.
6. Enter the MMS Server port for the Torrent VCG into the designated entry field.
7. Enter the Audio Port for the stream into the designated entry field.
8. Enter the Video Port for the stream into the designated entry field.
9. Enter the TTL into the designated entry field.
10. Press **Continue** if you wish to keep configuring more ports within the Torrent VCG, otherwise, press **Finish**.

Figure 8.3: Streaming Configuration



Call Slot #:	1	2	3	4	5
Multicast IP:	224.0.0.67	224.0.1.67	224.0.2.67	224.0.3.67	224.0.4.67
MMS Server:	47190	47200	47210	47220	47230
RTSP Audio:	47192	47202	47212	47222	47232
RTSP Video:	47194	47204	47214	47224	47234
TTL:	10	10	10	10	10
Call Slot #:	6	7	8	9	10
Multicast IP:	224.0.5.67	224.0.6.67	224.0.7.67	224.0.8.67	224.0.9.67
MMS Server:	47240	47250	47260	47270	47280
RTSP Audio:	47242	47252	47262	47272	47282
RTSP Video:	47244	47254	47264	47274	47284
TTL:	10	10	10	10	10

Configuring Slot 1

Multicast IP	224.0.0.67
MMS Server Port	47190
RTSP Audio Port	47192
RTSP Video Port	47194
TTL	10

8.9 Telnet Configuration

Administrators can gain access to the Torrent VCG through a telnet session. To do this the telnet access must be enabled from within the web interface. It is recommended to leave telnet disabled when not in use. From the Telnet Configuration Submenu, the administrator can change the port that uses telnet. It can also determine whether or not to enable telnet upon boot of the Torrent VCG. To activate telnet, you must go to the Manage Services Submenu discussed in section 8.5.

:5. Select **System Configuration** from the Administration Interface Menu.
:6. Select **Telnet Access** from within the System Configuration sub-menu.
:7. Enter the port number for the Torrent OSA to use during telnet sessions. (The default telnet port is 23)
:8. USing the check box, select whether telnet will be enabled during the boot of the Torrent VCG. Press **Update Settings**.

FINISH: You have successfully adjusted the telnet access for the Torrent VCG.

8.10 Time Synchronization

The Time Synchronization section of the web interface displays the current system time of the Torrent VCG. The Torrent VCG can be synchronized to a time host within this section as well.

1. Select **System Configuration** from the Administration Interface Menu.
2. Select **Time Synchronization** from within the System Configuration submenu.
3. Enter the Time Host that will be used to synchronize the system time of the Torrent VCG into the provided entry field.
4. Check the box for the protocol type of the Time Host.
5. Check the box marked Persistent if you desire frequent time updates.
6. Press **Next Step**.

FINISH: The next page will confirm the changes made to the system time. You have successfully changed the system time of the Torrent VCG.

9 System Information

The Torrent VCG allows the administrator or moderator to change their account information. This information includes their E-mail, password, and the default media player used at call connection.

9.1 Usage Statistics

The Usage Statistics section allows the administrator to check the bandwidth and streaming activity on the Torrent VCG. The administrator has the ability to check the Streaming Server Connection Summary, the Streaming Bandwidth Summary, the Active Stream List, and the Active Multicast List. These tables are just a summary of the statistics involved in each report.

9.1.1 Streaming Bandwidth Summary

The following statistics break down the connections to the Torrent VCG by bandwidth and connections.

1. Select **System Information** from the Administration Interface Menu.
2. Select **Usage Statistics** from within the System Information submenu.
3. Select **Streaming Bandwidth Summary** from within the Usage Statistics to see a report on the current streaming bandwidth summary.

9.1.2 Active Stream List

The following statistics break down the connections to the Torrent VCG by displaying the current active streams.

1. Select **System Information** from the Administration Interface Menu.
2. Select **Usage Statistics** from within the System Information submenu.
3. Select **Active Stream List** from within the Usage Statistics submenu to see a report on the current active streams list.

9.1.3 Active Multicast List

The following statistics break down the connections to the Torrent VCG by displaying the current active multicast streams.

1. Select **System Information** from the Administration Interface Menu.
2. Select **Usage Statistics** from within the System Information submenu.
3. Select Active Multicast List from within the Usage Statistics submenu to see a report on the current active multicast list.

9.2 General Information

The General Information section of the Torrent VCG allows the administrator to check the current settings of the Torrent VCG, including the Product Version, the Hostname, the System Time, the current Uptime, and the Network information.

9.3 Logs

The administrator can retrieve Logs from the Torrent VCG in two different ways. The web interface allows the administrator to retrieve logs and have them displayed on the screen for problem solving and status updates. Also, the administrator can download W3C compliant logs from the FTP server of the Torrent VCG for use in web tracking software.

9.3.1 Retrieving Logs from the Web Interface

1. Select **System Information** from the Administration Interface Menu.
2. Select **Logs** from within the System Information submenu.
3. Check the box of the Log Type you wish to retrieve. Press **Next Step**.
4. Enter the time at which you wish the logs to begin into the designated entry fields, OR select a time offset in the lower fields. Press **Next Step**.
5. Enter the time at which you wish the logs to end into the designated entry fields, OR select a time offset in the lower fields. Press **Next Step**.

6. A text file will appear on the web interface of the Torrent VCG. To save the file to your hard drive, press **Save File**.

9.3.2 Retrieving Logs Using FTP

1. Negotiate a connection to the Torrent VCG using FTP.
2. Log into the Torrent VCG using the username “logs” and the password “logs”.
3. Retrieve the desired log files from the Torrent VCG.
4. End the FTP connection to the Torrent VCG.

9.4 Network Diagnostics

The Torrent VCG allows the administrator to check the network diagnostics of an intended videoconference participant.

1. Select **System Information** from the Web Interface Menu.
2. Select **Network Diagnostics** from within the System Information submenu.
3. Using the provided table, check the circles that pertain to the diagnostic check you wish to perform.
4. Enter the IP Address of the system in question into the entry field.
5. Press **Execute Query**. Below the table the results will appear displaying the intended information.

9.5 Storage Utilization

The administrator can determine the amount of storage space currently available on the Torrent VCG by using the Storage Utilization section of the Web Interface. The Storage Utilization section displays the amount of storage available within the archive section of the hard drive, and also displays the amount of storage available within the logs section of the hard drive. The administrator can also clear the logs files from the system from this section.

1. Select **System Information** from the Administration Interface Menu.
2. Select **Storage Utilization** from within the System Information submenu to display the Torrent VCG’s storage status. This will display all active mounts and internal hardware storage status.

9.5 STORAGE UTILIZATION

Users

10

The Torrent VCG allows administrators to set up accounts for other users. This allows the administrator to provide access to the box without providing all administrator functions. These users are able to set up and place video-conference calls, set access for those calls, and provide chat and slide presentations during the videoconferences. The users are also responsible for maintaining their own content within the Torrent VCG.

10.1 Adding Users

1. Select **Users** from the Administration Interface Menu.
2. Select **Add** from within the User submenu.
3. Enter the new User Name into the designated entry field.
4. Enter and verify the password for the new user into the designated entry fields.
5. Enter the email address of the new user into the designated entry field.
6. Enter the maximum number of simultaneous calls the new user will have access to on the Torrent VCG into the designated field.
7. Enter the number of lines the new user may possess.
8. Enter the amount of Storage Space you wish to provide the new user with into the designated entry field.
9. Check the box for the default media player of the new user.Press **Next Step**.
10. Enter in the E164 alias and any other aliases that are required for the user into the designated fields.

NOTE: The E164 alias is a unique identifier for each line of the User on the Torrent VCG.

11. Set the **Maximum Bitrate** for this line by using the designated drop down menu.
12. Set the **Picture Update** time for this particular line by using the designated entry field.
13. Using the drop down menus, toggle the Multicast fields to the desired settings.
14. Check the boxes of the videoconference codecs you wish to authorize.

15. Using the drop down menu, toggle the **Automatic Answer** field to the desired setting.

NOTE: The Automatic Answer field determines whether or not the VCG accepts incoming calls to this User's particular line.

16. Check the boxes of the media players you wish to allow during conferences from this line.
17. Press **Finish**.

NOTE: For a description of the line setting entry fields see section 10.4.

FINISH: You have successfully added a new User to the Torrent VCG.

10.2 Editing User Accounts

10.2.1 Editing User Information

1. Select **Users** from the Administration Interface Menu.
2. Select **Edit** from within the User submenu.
3. Select **Edit User Information** from the Edit Submenu.
4. Select the user you wish to edit. Press **Edit User**.
5. Enter the desired changes into the appropriate entry fields.

NOTE: The Administrator can change the status of Users in this section. They can disable a User here if they do not wish to delete the User's entire settings.

6. Press **Update User Settings**. A confirmation page will appear listing the new settings to the User.

FINISH: You have successfully updated a User's settings.

10.2.2 Adding Lines to Users

1. Select **Users** from the Administration Interface Menu.
2. Select **Edit** from within the User submenu.
3. Select **Add Line** from the Edit Submenu.
4. Select the User you wish to add a line to. Press **Next Step**.
5. Enter in the E164 alias and any other aliases that are required for the user into the designated fields.

NOTE: The E164 alias is a unique identifier for each line of the User on the Torrent VCG.

6. Set the **Maximum Bitrate** for this line by using the designated drop down menu.
7. Set the **Picture Update** time for this particular line by using the designated entry field.
8. Using the drop down menus, toggle the Multicast fields to the desired settings.
9. Check the boxes of the videoconference codecs you wish to authorize.
10. Using the drop down menu, toggle the **Automatic Answer** field to the desired setting.

NOTE: The Automatic Answer field determines whether or not the VCG accepts incoming calls to this User's particular line.

11. Check the boxes of the media players you wish to allow during conferences from this line.
12. Press **Create Line**.

NOTE: For a description of the line setting entry fields see section 10.4.

FINISH: You have successfully added a line to an existing User on the Torrent VCG.

10.2.3 Editing User Line Settings

1. Select **Users** from the Administration Interface Menu.
2. Select **Edit** from within the User submenu.
3. Select **Edit Line Settings** from the Edit Submenu.
4. Select the User whose lines you wish to edit. Press **Next Step**.
5. Select the Line you wish to edit. Press **Edit Line Settings**.
6. Enter the desired changes into the appropriate fields. Press **Finish**.

NOTE: For a description of the line setting entry fields see section 10.4.

FINISH: You have successfully edited a User's line settings on the Torrent VCG.

10.2.4 Deleting User Lines

1. Select **Users** from the Administration Interface Menu.
2. Select **Edit** from within the User submenu.
3. Select **Delete Line** from the Edit Submenu.
4. Select the User whose line you wish to delete. Press **Next Step**.
5. Select the line you wish to delete from the User. Press **Delete Line**.
6. A confirmation page appears with the User's line settings you are about to delete. Press **Confirm Line Deletion**.

FINISH: You have successfully deleted a User's line from the Torrent VCG.

10.3 Deleting Users

1. Select **Users** from the Administration Interface Menu.
2. Select **Delete** from within the User submenu.
3. Select the User you wish to delete.
4. Check the **Remove all files** box if you wish to delete all of the User's files.
5. A confirmation page will appear that shows you the User you are about to delete. Press **Next Step**.

FINISH: You have successfully deleted a User from the Torrent VCG.

10.4 Line Settings Entry Field Descriptions

E.164 Alias: The administrator uses this field to determine the E.164 Alias for this individual line of the Torrent VCG. This must be a numeric value.

H.323 Alias: The administrator uses this field to determine the H.323 Alias for this individual line of the Torrent VCG. This must be in alpha-numeric format.

EXAMPLE: "Torrent VCG Line 1"

URL Alias: The administrator uses this field to determine the URL Alias for this individual line of the Torrent VCG. This must be in URL format.

EXAMPLE: “h323://line1.h114.starbak.net”.

Email Alias: The administrator uses this field to determine the Email Alias for this individual line of the Torrent VCG. This must be in Email format.

EXAMPLE: “line1@h114.starbak.net”

Max. Bitrate: This drop down menu determines the maximum allowed bitrate for this individual line. This does not affect the other lines on the box. If the administrator is changing the line configuration of Line 1 within the Torrent VCG and the Maximum Bitrate Menu is pulled down so that 768Kb/s is chosen, then Line 1 is unable to connect to video streams with a Bitrate higher than 768Kb/s.

MMS Multicast: This drop-down menu allows the User to enable or disable MMS multicasting within their network.

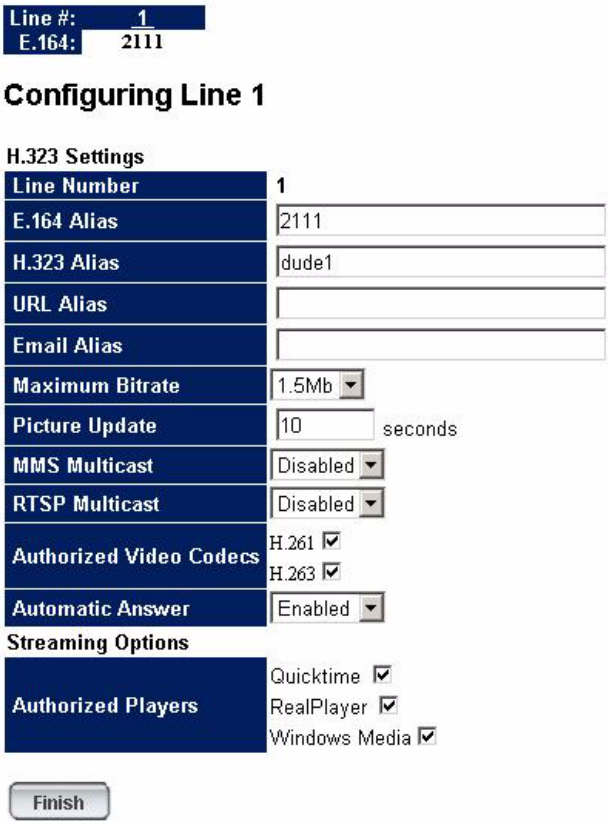
RTSP Multicast: This drop-down menu allows the User to enable or disable RTSP multicasting within their network.

Auth. Vid Codec: Using this option, the administrator enables this line of the Torrent VCG to connect to endpoints using the selected video codecs.

Auto Answer: This drop down menu allows the administrator to not be present when incoming calls are being placed to the Torrent VCG. This also allows the administrator to keep the Torrent VCG from automatically answering endpoints. This helps prevent unwanted traffic from the Torrent VCG.

Auth. Players: This field allows the administrator to limit the available player outputs of the live and archive streams. The administrator can access to streams with a particular player by checking the designated box for that player.

Figure10.1: Line Settings Page



11 File Management

The Torrent VCG allows the Administrator and Users to do their file management from the web interface. The Administrator and Users can delete files, edit calls, read file information about calls, move files and directories, create directories, export calls, and view calls. This chapter explains how to manage your files from within the web interface.

Figure 11.1: File Management Page

11.1 Deleting Files

The Torrent VCG allows the owner of videoconference archives to delete their files from the Torrent VCG once they do not need them any longer.

1. Select **File Management** from the Administration Interface Menu.
2. Select the file or the directory you wish to delete.
3. Press the **Delete** button on the file management menu bar at the bottom of the page.
4. A confirmation page appears to finalize your selection. Press **Finish**.

FINISH: You have successfully deleted a file from the Torrent VCG.

11.2 Editing Calls

Once a call is archived, the User and Administrator can edit the call information from the File Management page. This provides the User the ability to add call descriptions to their archives, change filenames, and change the replay access of the archived calls.

1. Select **File Management** from the Administration Interface Menu.
2. Select the file or the directory you wish to edit.
3. Press the **Edit Call** button on the file management menu bar at the bottom of the page.
4. Enter the new information into the designated entry fields. Press **Finish**.

FINISH: You have successfully edited a call within the Torrent VCG.

11.3 File Information

After a videoconference has been archived, the owner of the video may view the file information from within the File Management section of the Web Interface.

1. Select **File Management** from the Administration Interface Menu.
2. Select the file or the directory whose information you wish to view.
3. Press the **File Info** button on the file management menu bar at the bottom of the page.
4. A call information page appears providing the User with details about the specific call. When finished, press **Return to File Management**.

FINISH: You have successfully viewed the information of a call within the Torrent VCG.

11.4 Moving Files

Once a file has been archived, the Administrator or User owning the file may move the file to a new location using the File Management section of the Web Interface.

1. Select **File Management** from the Administration Interface Menu.
2. Select the file or the directory you wish to move.
3. Press the **Move** button on the file management menu bar at the bottom of the page.
4. Select the directory in which you wish to move the selected file. Press **Finish**.

FINISH: You have successfully moved a file within the Torrent VCG.

11.5 Viewing Calls

The Torrent VCG enables the owners of archived videoconferences to view their streams from the File Management section. This allows the owner of the file to view the content before allowing public access to the general viewers.

1. Select **File Management** from the Administration Interface Menu.
2. Select the archived videoconference you wish to view.
3. Press the **View Call** button on the file management menu bar at the bottom of the page.
4. A new browser page will open with the Torrent VCG Call Viewer playing the selected archived conference.

FINISH: You have successfully viewed a call within the Torrent VCG.

11.6 Adding Directories

When a new user is created, the Torrent VCG creates a new directory for that user within the root directory of the Torrent VCG. However, new directories may be needed for file management. The Torrent VCG allows you to create new directories within the File Management section of the Web Interface.

1. Select **File Management** from the Administration Interface Menu.
2. Press the **Add Directory** button on the file management menu bar at the bottom of the page.
3. Enter the name of the new directory in the designated entry field. Press **Finish**.
4. A confirmation page will appear showing the path of the new directory. Press **Return to File Management**.

FINISH: You have successfully created a new directory within the Torrent VCG

NOTE: The directory is created in the user's root directory by default. Perform the steps outlined in section 11.4 to move the new directory a new location.

11.7 Exporting Calls

When a new user is created, the Torrent VCG creates a new directory for that user within the root directory of the Torrent VCG. However, new directories may be needed for file management. The Torrent VCG allows you to create new directories within the File Management section of the Web Interface.

1. Select **File Management** from the Administration Interface Menu.
2. Select the video you wish to export.
3. Press the **Export Call** button on the file management menu bar at the bottom of the page.
4. Enter the filename you wish to use for the exported video.
5. Select the export format. Press **Finish**.

NOTE: If you select "Export Whole Conference" a .zip file will be created with this conference name that contains the video, and/or chat, and/or slides that were viewed during the live call.

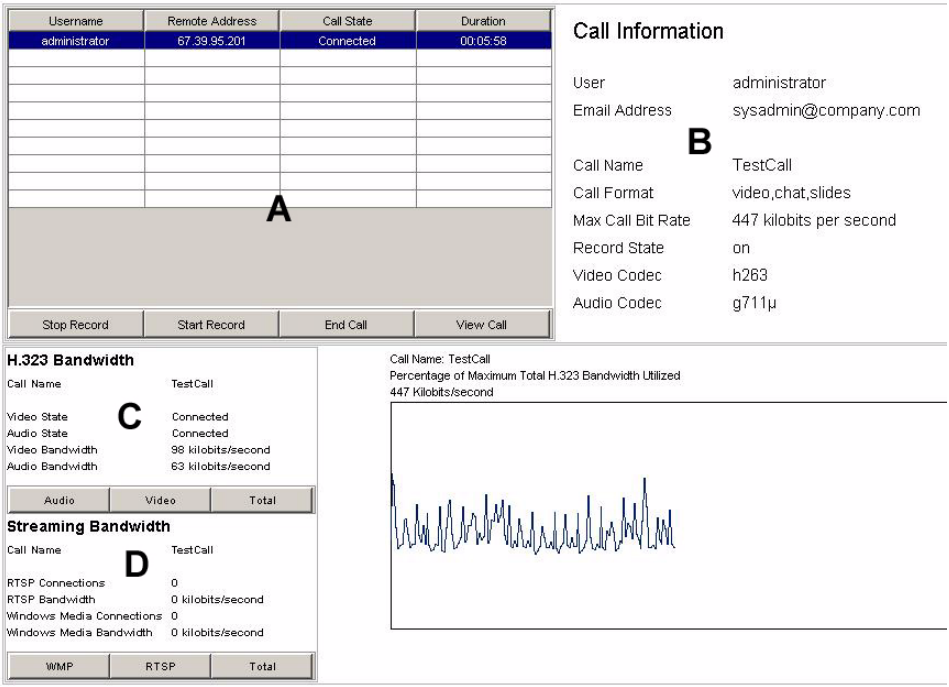
6. A confirmation page appears displaying the export filename and a link to the downloadable video.
7. To retrieve the exported video file, log into the FTP server of the Torrent VCG. The log in and username are the same as for the Web Interface.

FINISH: You have successfully exported a conference from the Torrent VCG.

12 Call Center

The Torrent VCG Call Center is used to view information regarding calls in progress. The Call Center contains a switchboard (A), a call information table (B), an H.323 bandwidth monitor (C), and a streaming bandwidth monitor (D). The owner of a specific call, can log into the call center within the web interface and view all the necessary information from each call they are currently connected to.

Figure 12.1: Torrent VCG Call Center



To view a the information of a conference, click on the specific conference within the switchboard. The videoconference's information will then be displayed within the tables B,C, and D. By pressing the gray buttons in tables C

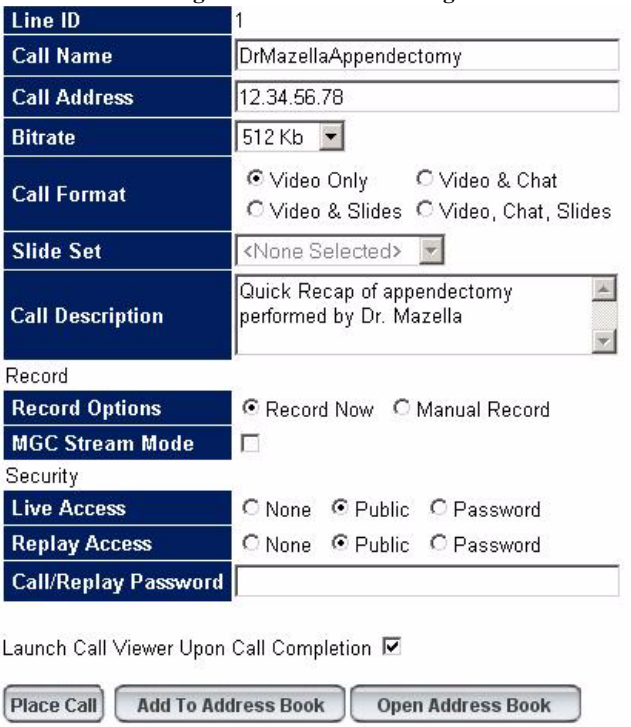
and D, the owner of the conference can view the real-time bandwidth graph displayed to the right of those tables.

The owner of the call can also control the recording of the conference from the call center, as well as end the conference when it is complete.

13 Placing Calls

The Torrent VCG can join videoconferences in two different ways. The first way is to be invited into a call from another endpoint or MCU. The second way is to place the call from the Torrent VCG. This chapter discusses placing calls from the Torrent VCG.

Figure 13.1: Place Call Page



1. Select **Place Call** from the Web Interface Menu located on the left side of the web interface.
2. Choose which line you wish to use to join the videoconference. Press **Place Call**.

3. Enter the **Call Name** into the designated field. This is the name that will be used within the call catalog to describe your conference.
4. Enter the **Call Address** into the designated field. The Torrent VCG will accept IP addresses, E.164 Aliases, H.323 Aliases, E-Mail Aliases, and URL Aliases.
5. Select the **Call Format** using the designated radio buttons.
6. If you are using a slide format, choose your slideset using the designated drop-down menu.
7. Enter a call description into the **Call Description** text field.
8. Using the **Record Options** field, you can determine if you want the Torrent VCG to record the conference upon connection, or manually.
9. If you are using a Polycom MGC in continuous presence mode or transcoding mode, check the **MGC Stream Mode** box.
10. Using the **Live Access** field, check whether you want the live access for this particular conference to be Public, Password protected, or no access.
11. Using the **Replay Access** field, check whether you want the replay access of this conference to be Public, Password protected, or no access.
12. If you are making the live access or public access password protected, enter the password into the designated entry field.
13. Using the check box provided, determine whether or not to have the call viewer pop up when you place your call.
14. Press **Place Call**.
15. A call initiation progress page will appear showing you the status of the call setup. Once the call connection is completed, you will be taken to the call center. A Call Viewer will be launched at this time if you checked that option in the Place Call menu.

Appendices

Viewing Streams

A

This section focuses on the viewers of the Torrent VCG live and archive streams. The Torrent VCG is able to stream videoconferences in a combination of ways. Live videoconferences can be viewed video only, with video and chat, or with video, chat, and slides all at once. This enables the viewer to take an active role in the videoconference. The viewer may also access the videoconferences through the ”Replay” option of the Torrent VCG.

A.1 Accessing the Catalog Page

The first step in watching live and archived videoconferences from the Torrent VCG is being able to access the catalog page within the Torrent VCG. There are two types of catalog pages within the Torrent VCG. There is an administrator catalog page (Which shows all active calls within the Torrent VCG) and each user is given a catalog page (Which only shows the active calls for each individual user).

1. Enter the URL of the Torrent VCG into the address bar of a web browser.

Example: http://11.11.11.11/administrator for the administrator catalog page
Example: http://11.11.11.11/user for the user catalog page

2. Press **Enter**.
3. The Torrent VCG Call Catalog page will appear. (See Figure A.1)

Figure A.1: Live Catalog

A.2 Joining Live Calls

Once the Viewer has accessed the catalog page, the Viewer can select which videoconference to join. The Administrator will have given each videoconference a suitable description for each conference so that the Viewers know which call to join. The Administrator can block unwanted Viewers by adding the password option to conferences as he/she sees fit.

1. Access the Torrent VCG Catalog Page.
2. Select the conference you wish to join.
3. Press Join Call.

NOTE: At this point a password or chat name may be asked for before entrance into the conference is accepted. Consult your Administrator or user if you do not know the password. Once you have connected to the call you should start to see the stream in a Quicktime, Real One, or Windows Media plug-in. If you do not have the designated plug-in, your browser will prompt you to download the plug-in. To download the plug-in you must be logged into your PC as administrator or your user must have administrative permissions.

A.3 Viewing Archived Conferences

The Torrent VCG has the ability to record H.323 videoconferences for later viewing. This can be accessed within the Torrent VCG catalog page section.

1. Access the Torrent VCG Catalog Page.
2. Click “Replay” from the top right corner of the browser window.
3. Select the videoconference you wish to view by highlighting the appropriate circle.
4. Press View Stream.

NOTE: At this point a password or chat name may be asked for before entrance into the conference is accepted. Consult your administrator or user if you do not know the password. Once you have connected to the call you should start to see the stream in a Quicktime, Real One, or Windows Media plug-in. If you do not have the designated plug-in, your browser will prompt you to download the plug-in.

Firewall Reference

B

This section enables Systems administrators to determine which ports to open on the firewall to enable streaming from the Torrent VCG.

B.1 Torrent VCG Port Reference

The following port reference is for using the Torrent VCG features in conjunction with a firewall.

- Port 80 In/Out for TCP (Web Interface)
- Ports 1719-1720In/Out for TCP (Gatekeeper registration)
- Port 3215 In/Out for TCP (This is the Java/Interface port)
- Port 7776 In/Out for TCP (For the interactive chat feature of the Torrent VCG)
- All ports over 1024 for UDP (This is required for the H.323 protocol on all endpoints)

B.2 QuickTime and Real One Streaming Ports

The following port reference is for enabling Quicktime streaming from the Torrent VCG.

- Port 554 RTSP over TCP (This is where the player controls are sent)
- Ports 6970-6999 inclusive for RTP over UDP (These are the video transport ports)

B.3 Windows Media Streaming Ports

The following port reference is for enabling Windows Media Streaming.

- In/Out: TCP port 1755 (This is where the player controls are sent)
- In/Out: UDP port 1755
- In/Out: UDP ports 1024 -5000 as needed (These are the video transport ports)
- ***You can adjust individual clients' players to only use certain ports within this range to save for too many open ports on the firewall. For example: Under "Tools" then "Options" within the Windows Media Player the client can select the "Network" tab to limit the ports being used to ports 1050-1051.***

Telnet/FTP Features

C

As mentioned in earlier chapters of the manual, the Torrent VCG enables administrators and moderators to telnet and FTP for several different reasons. Telnet can be used to remotely administer the Torrent VCG so that the administrator does not have to be on site to make changes to the configuration of the unit. FTP enables administrators and moderators the opportunity to download their archived videoconferences for storage, distribution, or re-encoding. This chapter explains the uses of these two features and how they are controlled.

C.1 Using Telnet

Telnet enables the administrator to control the Torrent VCG from a remote location. All of the functionality of the serial console is available within the telnet feature except for the Network Configuration of the Torrent VCG.

1. To connect to the Torrent VCG you must enable telnet within the Administration Interface. (Refer to section 8.9 of the manual to enable telnet.)
2. Telnet to the IP Address or hostname of the Torrent VCG.
3. Once connected, press Enter to activate the serial console.
4. You will be prompted for a password. Enter the serial console password. The default password is administrator.
5. The serial console is now active. (Refer to chapter 3 of the manual for help with the serial console.)

NOTE: The Network Configuration feature within the serial console is not active with a telnet connection. To change the network configuration of the Torrent VCG, you must be connected to the unit with a null modem serial cable as described in chapter 3.

C.2 Using FTP

The Torrent VCG uses FTP to allow Administrators and Users to export their archived videoconferences or log files off of the Torrent. This feature makes it easy for the administrator/user to re-encode the video, distribute the video-conference, or simply back up the conference for later retrieval.

C.2.1 Using FTP to Export Videoconferences

1. Within the web interface, export a conference or video file. (Refer to section 11.2 on exporting conferences.)
2. Connect to the Torrent VCG using and FTP client. Use either the IP Address or the URL of the Torrent.
3. The Torrent will ask you for a user name and password. For the administrator the user name and password are the same as the log-in to the Administration Interface log-in. For Users, the user name and password is the same as the Web Interface.
4. Using the FTP client, move the video or videoconference to the destination directory.

C.2.2 Using FTP to Export Log Files

Removing Log Files from the Torrent VCG is an administrator only feature. Moderators do not have the permissions to access the log files.

1. Connect to the Torrent VCG using an FTP client. Use either the IP Address or the URL of the Torrent.
2. The Torrent will ask you for a user name and password. The user name is **logs** and the password is **logs**.
3. Locate the log file you wish to download and export the file to the destination directory.

Client Requirements

D

The Torrent VCG is designed to function with a wide range of client-side specifications. However, due to differences in browsers and operating systems it is nearly impossible to be compliant with every system in the user realm. The following chapter outlines the known compatible systems and browsers for the Torrent VCG.

D.1 PC Requirements

D.1.1 Compatible Browsers

Microsoft Internet Explorer 5.5 and higher.
Mozilla 0.9 and higher.
Requires JVM
Netscape 4.7x & 6.1 and higher. Not version 6.0.

D.1.2 Compatible Media Players

Microsoft Windows Media Player 6.4 (Pre-installed Win98 --> XP)
Apple QuickTime Player 5.0 and higher.
Real Networks Real One Player.

D.2 Macintosh Requirements

D.2.1 Compatible Browsers

Microsoft Internet Explorer 5.1 and higher.
Mozilla 0.9 and higher.
Requires JVM
Netscape 4.7x & 6.1 and higher. Not version 6.0.

D.2.2 Compatible Media Players

Apple Quicktime 5.0 and higher.
Microsoft Windows Media Player does not work. The required codec is not supported.

Reading the Logs

E

The Torrent VCG is designed to function with a wide range of client-side specifications. However, due to differences in browsers and operating systems it is nearly impossible to be compliant with every system in the user realm. The following chapter outlines the known compatible systems and browsers for the Torrent VCG.

E.1 H.323 Access Logs

The H.323 Access logs are basically the summaries of the interactions between the Torrent VCG and other H.323 equipment.

E.1.1 Example of Call Setup

Dec 17 15:38:27 localhost H323[4721]: productID: Polycom ViaVideo
Dec 17 15:38:27 localhost H323[4721]: versionId: Release 3.0 26Feb2002 3.0.0.144ä¹^S^Hp {^D
Dec 17 15:38:27 localhost H323[4721]: Incoming call detected
Dec 17 15:38:27 localhost H323[4721]: Preparing xmlrpcCallNotification with alias =
Dec 17 15:38:27 localhost H323[4721]: Incoming IP Call detected with IP = 12.34.56.78
Dec 17 15:38:27 localhost H323[4721]: Received response from hub
Dec 17 15:38:27 localhost H323[4721]: Hub returned NULL in reply
Dec 17 15:38:56 localhost H323[4721]: Set up mms unix domain socket
Dec 17 15:38:56 localhost H323[4721]: Set up rtsp unicast sockets
Dec 17 15:38:56 localhost H323[4721]: Call_ID 3: Recording started
Dec 17 15:38:56 localhost H323[4721]: Filename: Default_2002.12.17_15:38:56.ce
Dec 17 15:38:56 localhost H323[4721]: Call_ID 3: Placing call to TA:68.22.149.223 (rate: 131072)
Dec 17 15:38:56 localhost H323[4721]: Call_ID 3: Call state dialtone
Dec 17 15:38:58 localhost H323[4721]: productID: Polycom ViaVideo
Dec 17 15:38:58 localhost H323[4721]: versionId: Release 3.0 26Feb2002 3.0.0.144^\!^S^HÚ)Ú^Q
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Call state connected
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Negotiated Rate Assignment: 67072
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Sending Capabilities: H263/H261
Dec 17 15:38:58 localhost H323[4721]: send_capabilities: ret 1
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Call Rate: 131050
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Remote capabilities received
Dec 17 15:38:58 localhost H323[4721]: Remote rate max h261/h263 3840/3840
Dec 17 15:38:58 localhost H323[4721]: Negotiated codec_type/max 34/67050
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: MSSlave
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Call state connected
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Local RTP port 4004
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Event handler init - Type 1 MMS 1 RTSP 1
Dec 17 15:38:58 localhost H323[4721]: Audio: Standard
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Building g711Ulaw64k channel

Dec 17 15:38:58 localhost H323[4721]: rate: 60
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Channel audio_out Dialtone
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Channel audio_out: State: 1 Mode 1
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Opening video channel
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Local RTP port 4006
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Event handler init - Type 2 MMS 1 RTSP 1
Dec 17 15:38:58 localhost H323[4721]: Video streaming: RTSP/MMS
Dec 17 15:38:58 localhost H323[4721]: Recording: on
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Channel video_out Dialtone
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Channel video_out: State: 1 Mode 1
Dec 17 15:38:58 localhost H323[4721]: Call_ID 3: Call state connected
Dec 17 15:38:59 localhost H323[4721]: Remote RTCP ip/port 12.34.56.78 49155
Dec 17 15:38:59 localhost H323[4721]: g711Ulaw64k
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Audio channel codec info sent
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel audio_in Offering
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel audio_in Connected
Dec 17 15:38:59 localhost H323[4721]: Remote RTCP ip/port 12.34.56.78 49157
Dec 17 15:38:59 localhost H323[4721]: h263VideoCapability
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Call connected
Dec 17 15:38:59 localhost H323[4721]: remote ip: 12.34.56.78 bitrate: 131050
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Video channel codec info sent
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel video_in Offering
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel video_in Connected
Dec 17 15:38:59 localhost H323[4721]: Remote RTCP ip/port 12.34.56.78 49155
Dec 17 15:38:59 localhost H323[4721]: Remote RTP ip/port12.34.56.78 49158
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel audio_out Connected
Dec 17 15:38:59 localhost H323[4721]: Remote RTCP ip/port 12.34.56.78 49157
Dec 17 15:38:59 localhost H323[4721]: Remote RTP ip/port 12.34.56.78 49156
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel video_out Connected
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: Channel 813f5d4: New Rate:670
Dec 17 15:38:59 localhost H323[4721]: Call_ID 3: New Rate: 131000
Dec 17 15:40:28 localhost H323[4721]: Old mms fd: 8 Dec 17 15:40:28 localhost H323[4721]:
New mms fd: 19

E.1.2 Example of Call Tear Down

Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Recording ended
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel audio_out Disconnected
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel audio_out Idle
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel video_out Disconnected
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel video_out Idle
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel audio_in Disconnected
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel audio_in Idle
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel video_in Disconnected
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Channel video_in Idle
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Call state disconnected
Dec 17 15:41:10 localhost H323[4721]: Reason: unknown Dec 17 15:41:10 localhost H323[4721]:
Call_ID 3: Call state idle
Dec 17 15:41:10 localhost H323[4721]: Call_ID 3: Call ended
Dec 17 15:41:10 localhost H323[4721]: Duration: 131 seconds
Dec 17 15:41:10 localhost H323[4721]: Destroying MMS connnection
Dec 17 15:41:10 localhost H323[4721]: Unable to find internal bcast
Dec 17 15:41:10 localhost H323[4721]: Destroying MMS connnection

E.1.3 Example of H.323 Shutdown

Dec 18 12:08:19 localhost H323[4721]: H323 shutdown start
Dec 18 12:08:19 localhost H323[4721]: Closed all Calls
Dec 18 12:08:19 localhost H323[4721]: RTP module closed
Dec 18 12:08:19 localhost H323[4721]: RTCP module closed
Dec 18 12:08:19 localhost H323[4721]: Stack closed
Dec 18 12:08:19 localhost H323[4721]: ---------- H323 module exited ----------

E.1.4 Example of H.323 Start Up

Dec 18 12:10:52 skull H323[10865]: ********** H323 module starting **********
Dec 18 12:10:52 skull H323[10865]: status_init: status->max_connects(7500) != configfile->max_sessions(65536). Changing config
Dec 18 12:10:52 skull H323[10865]: Gatekeeper enabled (endpoint mode)
Dec 18 12:10:52 skull H323[10865]: LINE_COUNT = 10
Dec 18 12:10:52 skull H323[10865]: HUB_PORT = 3216
Dec 18 12:10:52 skull H323[10865]: LOCAL_IP = 12.34.56.78
Dec 18 12:10:52 skull H323[10865]: GATEKEEPER_IP = 12.34.56.78
Dec 18 12:10:52 skull H323[10865]: GATEKEEPER_PORT = 1719
Dec 18 12:10:52 skull H323[10894]: GK registration state: registered

E.2 Hub Logs

Hub logs summarize logging events that tru to change the state of the Torrent VCG when the Torrent VCG is not configured to accept those changes.

E.3 Interface Logs

The Interface Logs are a summary of the interactions within the Torrent VCG interface. The Interface logs capture any event that occurs within the web interface of the Torrent VCG.

E.4 RTSP & HTTP Logs

The RTSP and HTTP Logs are divided up into daily summaries. Each RTSP and HTTP event begins on a new line in the log interface of the Torrent VCG. Here, they are in bold print and separated by a line. The following is an example of one day with four RTSP events:

#Software: Starbak RTSP Server
#Date: 2002-12-23 00:00:00
#Remark: all time values are in local time.
#Fields: c-ip date time c-dns cs-uri-stem c-starttime x-duration c-rate c-status c-playerid c-player-version c-playerlanguage cs(User-Agent) cs(Referer) c-hostexe c-hostexever c-os c-osversion c-cpu filelength filesize avgbandwidth protocol transport audiocodec videocodec channelURL sc-

bytes c-bytes s-pkts-sent c-pkts-received c-pkts-lost-client c-pkts-lost-net c-pkts-lost-cont-net c-resendreqs c-pkts-recovered-ECC c-pkts-recovered-resent c-buffercount c-totalbuffertime c-quality s-ip s-dns s-totalclients s-cpu-util

68.22.149.145 2002-12-23 09:27:47 - rtsp://68.22.149.65/.sdp/administrator/administrator_1.sdp 0 1 1 200 - - - - - - - - - - 0 0 - RTP - - - - 63164 63164 60 60 - - - - - - - - - 68.22.149.65 - - -

68.22.149.145 2002-12-23 09:28:53 - rtsp://68.22.149.65/.sdp/administrator/administrator_1.sdp 0 3 1 200 - - - - - - - - - - 0 0 - RTP - - - - 0 0 0 0 - - - - - - - - - 68.22.149.65 - - -

68.22.149.145 2002-12-23 09:31:23 - rtsp://68.22.149.65/.sdp/administrator/administrator_1.sdp 0 6 1 200 - - - - - - - - - - 0 0 - RTP - - - - 158487 158487 181 181 - - - - - - - - - 68.22.149.65 - - -

68.22.149.145 2002-12-23 09:34:53 - rtsp://68.22.149.65/.sdp/administrator/administrator_1.sdp 0 2 1 200 - - - - - - - - - - 0 0 - RTP - - - - 0 0 0 0 - - - - - - - - - 68.22.149.65 - - -

E.5 HTTP Error

[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands.properties
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en.properties
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en_US.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en_US.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/Commands_en_US.properties
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en.properties
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en_US.class
[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en_US.class

[Mon Dec 23 09:27:42 2002] [error] [client 68.22.149.145] File does not exist: /opt/www/htdocs/admin/call_viewer/SIRC_en_US.properties

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